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**Electronic versus paper-based nursing documentation systems: the
caregivers weigh in**

Ping Yu

University of Wollongong, ping@uow.edu.au

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Electronic versus paper-based nursing documentation systems: the caregivers weigh in

Abstract

Information technology (IT) solutions have the potential to free carers in long-term care facilities from well-known problems with burdensome paper-documentation, allow them more direct care-time with clients and improve the quality of nursing records. However, to date, little scientific evidence is available to support this idea. Besides the concern about return on investment, a big barrier for the slow uptake of IT solutions in long-term care¹ is scepticism by managers about the capacity and willingness of older carers, most of them women, to use computers and the uncertainty about the potential change associated with introducing a new system. To my knowledge, no detailed study of carers' satisfaction with electronic documentation in nursing homes has been conducted. Research appears to be lacking on this important area that directly relates to the quality of life for an increasing number of elderly who will live in nursing homes.

Keywords

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**Electronic versus Paper-based Nursing Documentation Systems:
The Carers Weigh In**

Ping Yu, PhD

School of IT and Computer Science

University of Wollongong, Wollongong 2522, Australia

ping@uow.edu.au

Corresponding Author:

Dr. Ping Yu

School of IT and Computer Science

University of Wollongong, Wollongong 2522, Australia

Tel: 0061242215412

Fax: 0061242214170

ping@uow.edu.au

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Running head: Carers' acceptance of electronic documentation

To the Editor: Information technology (IT) solutions have the potential to free carers in long-term care facilities from well-known problems with burdensome paper-documentation, allow them more direct care-time with clients and improve the quality of nursing records. However, to date, little scientific evidence is available to support this idea. Besides the concern about return on investment, a big barrier for the slow uptake of IT solutions in long-term care¹ is scepticism by managers about the capacity and willingness of older carers, most of them women, to use computers and the uncertainty about the potential change associated with introducing a new system.² To my knowledge, no detailed study of carers' satisfaction with electronic documentation in nursing homes has been conducted. Research appears to be lacking on this important area that directly relates to the quality of life for an increasing number of elderly who will live in nursing homes.

The purpose of this research was to test the feasibility of implementing clinical IT solutions in nursing homes. A quasi-experimental, comparative design was undertaken in two homes belonging to the same management group *RSL Care* in Queensland, Australia. The participants included 15 available staff in the home using the electronic system and 12 staff in the facility practicing paper-documentation. The areas to be investigated included participants' basic demographic information; the norm about the usage of the relevant documentation system; participants' computer literacy and attitudes towards using IT solutions; their capacity to use the electronic or paper-based system; their satisfaction with such a system and the information it provided. The research methods included semi-structured interviews and questionnaire survey based on the validated measurement scales (available from the author).

No significant differences were found between the two facilities in terms of participants' gender (only one male participant at each site), age (ranged 20 to 60 and over in both sites), job roles and aged care work experience (ranged 3 month to more than 10 years). The norm for using the relevant documentation system was positive. In regard with computer skills, no significant site difference was found for the 12 test items measuring IT skills required for the carers to use the clinical IT system in trial. The majority of the carers in both sites appear to have adequate basic computer skill for adapting to its use.

Five weeks after the IT system implementation, improvements in the three major problems of paper-based systems, i.e. time requirements, accessibility and legibility, were identified as the primary advantages of the electronic over the paper-based documentation. Except for these differences, responses to the other measurement items were similar between the two sites. Their familiarity with the relevant documentation system was similar between the two sites as well. The respondents were equally happy with the majority of attributes of their nursing documentation system and the quality of the information provided by such a system, whether electronic or paper-based, although many carers at the electronic site reported the technical difficulties they experienced, including running speed and reliability issues. Several respondents acknowledged that the electronic documentation system enabled them to make more sense of what they read and thus enable them to give more precise care to their clients.

Eleven weeks into the electronic documentation trial, 90 per cent of carers (9 out of 10) interviewed said that they did not need more training lessons, but more practice with the electronic system. Only one carer expressed difficulty in using the electronic system because of a lack of basic keyboard skill. This led her to avoid the task of documentation.

For the majority of carers, the main challenge in nursing documentation appeared to be articulating what should be documented, rather than using electronic or paper-based documentation system. Eighty per cent of carers (20 out of 25) supported their organisation's decision to implement clinical IT systems. These results suggest that the carers are ready to go electronic.

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CONFLICT OF INTEREST

The author has no financial interest related to this work.

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Author Name: Ping Yu

Author Contributions: The author is fully responsible for research design, acquisition of subjects and data, analysis and interpretation of data, and preparation of manuscript.

Author Name: Ping Yu

Sponsor's Role: The Chief Executive Officer of *RSL Care* Ross Smith and members of the Project Steering Committee: Deborah Oxlade, Cheryl Richardson, Matthew Maw, Steve Powell, Susan DeVries, Susan Lane and Michelle Coman provided valuable input to the aim, planning and conduct of the project, including the confinement of project scope and validation of the survey instruments. Cheryl Richardson, Leanne Miller and Sue Beasley recruited the survey participants. However, the sponsor has no contribution to the design, methods, data collections, analysis and preparation of paper.

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